

REMARKS

This response is intended as a full and complete response to the Office Action dated April 12, 2006. In view of the following discussion, the Applicants believe that all claims are in allowable form.

IN THE SPECIFICATION

The Applicants herein amend paragraph [0030] for corrections to informalities. Specifically, reference numeral 332 referring to "the upper body ring" was corrected to reference numeral 322. The Applicants submit that no new matter was added.

CLAIM REJECTIONS

35 U.S.C. §112 Claims 6 and 20

Claims 6 and 20 stand rejected under 35 U.S.C. § 112. In response, Applicants have amended claims 6 and 20 as suggested by the Examiner. Accordingly, Applicants respectfully request the rejection be withdrawn.

35 U.S.C. §102 Claims 1, 3 and 4

Claims 1, 3 and 4 stand rejected as being unpatentable over European Patent Application No. 0 776 990 published April 6, 1997 to Tepman, et al. (hereinafter referred to as "Tepman"). The Applicants respectfully traverse the rejection.

Independent claim 1 recites limitations not taught or suggested by Tepman. Tepman teaches a substrate support apparatus for a deposition chamber. Specifically, Tepman teaches a shield ring with a tapered centering flange, an outer flange and a raised, inward extending roof. (See Tepman, col. 3, ll. 27-45.)

In contrast, Applicants' invention specifically teaches an inner ring disposed inward of the body and having a common upper surface therewith and a bridge coupling the inner ring to the body, wherein the cylindrical inner flange, the cylindrical outer flange, the inner ring, the bridge and the body form a single piece cover ring, as positively recited in independent claim 1. Tepman clearly fails to teach or to suggest an inner ring and a bridge. Moreover, the Examiner's attention is directed to the fact that FIG. 1 of Tepman fails to illustrate any distinguishable part that teaches or suggests a

bridge coupling the inner ring to the body, as positively recited by the Applicants' independent claim 1. Therefore, Tepman fails to anticipate Applicants' independent claim 1.

Thus, the Applicants submit that independent claim 1 and all claims depending therefrom, are patentable over Tepman. Accordingly, the Applicants respectfully request the rejection be withdrawn.

35 U.S.C. §103

Claims 1, 2 and 18

Claims 1, 2 and 18 stand rejected as being unpatentable over Tepman in view of United States Patent No. 5,494,523 issued February 27, 1996 to Steger, et al. (hereinafter Steger). The Applicants respectfully traverse the rejection.

As discussed above Tepman fails to teach or to suggest an inner ring and a bridge connecting the inner ring and the body as positively claimed by Applicants' independent claims 1 and, for similar reasons, independent claim 18. Moreover, Steger fails to bridge the substantial gap left by Tepman. Steger teaches an insulative annular disk cover. (See Steger, col. 4, ll. 64-67.) Consequently, Steger also fails to teach, show or suggest an inner ring and a bridge connecting the inner ring and the body.

In arguendo, even if Tepman and Steger were combined, the combination would teach an insulative annular disk cover with a tapered centering flange, an outer flange and a raised, inward extending roof. Therefore, combination of Tepman and Steger clearly fail to teach, show or suggest the Applicants' invention as recited by independent claims 1 and 18.

Thus, the Applicants submit that independent claims 1 and 18, and all claims depending therefrom, are patentable over Tepman in view of Steger. Accordingly, the Applicants respectfully request the rejection be withdrawn and the claims allowed.

35 U.S.C. §103

Claims 1 and 5

Claims 1 and 5 stand rejected as being unpatentable over Tepman in view of European Patent Application No. 0 628 989, published December 14, 1994 to

Davenport, et al. (hereinafter Davenport). The Applicants respectfully traverse the rejection.

As discussed above Tepman fails to teach or to suggest an inner ring and a bridge connecting the inner ring and the body as positively claimed by Applicants' independent claims 1. Moreover, Davenport fails to bridge the substantial gap left by Tepman. Davenport teaches a removable inset with a shadow ring. (See Davenport, col. 8, ll. 45-57.) Consequently, Davenport also fails to teach, show or suggest an inner ring and a bridge connecting the inner ring and the body.

In arguendo, even if Tepman and Davenport were combined, the combination would teach a removable insert and a shadow ring with a tapered centering flange, an outer flange and a raised, inward extending roof. Therefore, combination of Tepman and Davenport clearly fail to teach, show or suggest the Applicants' invention as recited by independent claim 1.

Thus, the Applicants submit that independent claim 1, and all claims depending therefrom, are patentable over Tepman in view of Davenport. Accordingly, the Applicants respectfully request the rejection be withdrawn and the claims allowed.

35 U.S.C. §103**Claims 1, 6, 7 and 10-15**

Claims 1, 6, 7 and 10-15 stand rejected as being unpatentable over Tepman in view of United States Patent No. 4,859,304, issued August 22, 1989 to Cathey, et al. (hereinafter Cathey). The Applicants respectfully traverse the rejection.

As discussed above Tepman fails to teach or to suggest an inner ring and a bridge connecting the inner ring and the body as positively claimed by Applicants' independent claims 1. Moreover, Cathey fails to bridge the substantial gap left by Tepman. Cathey teaches an anode plate that has the outer perimeter beveled in order that the effects of polymer buildup are reduced. (See Cathey, col. 2, ll. 11-15.) Cathey also fails to teach, show or suggest an inner ring and a bridge connecting the inner ring and the body. Moreover, Tepman and Cathey cannot be meaningfully combined because Tepman teaches a shield assembly for deposition chambers, such as CVD or PVD chambers, while Cathey teaches heat transfer in anode plates used in dry etch

equipment. Therefore, combination of Tepman and Cathey clearly fail to teach, show or suggest the Applicants' invention as recited by independent claim 1.

Thus, the Applicants submit that independent claim 1, and all claims depending therefrom, are patentable over Tepman in view of Cathey. Accordingly, the Applicants respectfully request the rejection be withdrawn and the claims allowed.

35 U.S.C. §103**Claims 16 and 17**

Claims 16 and 17 stand rejected as being unpatentable over Tepman in view of Cathey and in further view of United States Patent No. 5,700,725, issued December 23, 1997 to Hower, et al. (hereinafter Hower). The Applicants respectfully traverse the rejection.

As discussed above Tepman and Cathey fail to teach or to suggest an inner ring and a bridge connecting the inner ring and the body as positively claimed by Applicants' independent claims 1. Moreover, Hower fails to bridge the substantial gap left by Tepman and Cathey. Hower teaches an improved apparatus and method for the manufacture of integrated circuits comprising at least three protrusions that extend from the wafer support susceptor. (See Hower, Abstract.) Consequently, Hower also fails to teach, show or suggest an inner ring and a bridge connecting the inner ring and the body.

As discussed above, Tepman and Cathey cannot be meaningfully combined. However, in arguendo, even if Tepman and Hower were combined, the combination would teach a wafer support susceptor with at least three protrusions that extend from the wafer support susceptor and a shield ring with a tapered centering flange, an outer flange and a raised, inward extending roof. Therefore, combination of Tepman and Hower clearly fail to teach, show or suggest the Applicants' invention as recited by independent claim 1.

Thus, the Applicants submit that independent claim 1, and all claims depending therefrom, are patentable over Tepman in view of Cathey and in further view of Hower. Accordingly, the Applicants respectfully request the rejection be withdrawn and the claims allowed.

35 U.S.C. §103**Claims 8 and 9**

Claims 8 and 9 stand rejected as being unpatentable over Tepman in view of Cathey and in further view of United States Patent No. 4,793,975, issued December 27, 1988 to Drage (hereinafter Drage). The Applicants respectfully traverse the rejection.

As discussed above Tepman and Cathey fail to teach or to suggest an inner ring and a bridge connecting the inner ring and the body as positively claimed by Applicants' independent claims 1. Moreover, Drage fails to bridge the substantial gap left by Tepman and Cathey. Drage teaches a parallel plate plasma reactor in which the lower electrode comprises a metal electrode having a central pedestal and an insert for surrounding the pedestal. (See Drage, Abstract.) Consequently, Drage also fails to teach, show or suggest an inner ring and a bridge connecting the inner ring and the body.

As discussed above, Tepman and Cathey cannot be meaningfully combined. However, in arguendo, even if Tepman and Drage were combined, the combination would teach a parallel plate plasma reactor in which the lower electrode comprises a metal electrode having a central pedestal and an insert for surrounding the pedestal and a shield ring with a tapered centering flange, an outer flange and a raised, inward extending roof. Therefore, combination of Tepman and Drage clearly fail to teach, show or suggest the Applicants' invention as recited by independent claim 1.

Thus, the Applicants submit that independent claim 1, and all claims depending therefrom, are patentable over Tepman in view of Cathey and in further view of Drage. Accordingly, the Applicants respectfully request the rejection be withdrawn and the claims allowed.

35 U.S.C. §103**Claim 19**

Claim 19 stands rejected as being unpatentable over Tepman in view of Steger and in further view of Cathey and Hower. The Applicants respectfully traverse the rejection.

As discussed above Tepman and Steger fail to teach or to suggest an inner ring and a bridge connecting the inner ring and the body as positively claimed by Applicants' independent claims 1 and, for similar reasons, independent claim 18. Moreover, Cathey and Hower fail to bridge the substantial gap left by Tepman and Steger. Cathey teaches an anode plate that has the outer perimeter beveled in order that the effects of polymer buildup are reduced. (See Cathey, col. 2, ll. 11-15.) Hower teaches an improved apparatus and method for the manufacture of integrated circuits comprising at least three protrusions that extend from the wafer support susceptor. (See Hower, Abstract.) Consequently, Cathey and Hower also fail to teach, show or suggest an inner ring and a bridge connecting the inner ring and the body.

As discussed above, Tepman and Cathey cannot be meaningfully combined. However, in arguendo, even if Tepman, Steger and Hower were combined, the combination would teach a wafer support susceptor with at least three protrusions that extend from the wafer support susceptor and an insulative annular disk cover with a tapered centering flange, an outer flange and a raised, inward extending roof. Therefore, combination of Tepman, Steger and Hower clearly fail to teach, show or suggest the Applicants' invention as recited by independent claim 1.

Thus, the Applicants submit that independent claim 1, and all claims depending therefrom, are patentable over Tepman in view of Steger in further view of Cathey and in further view of Hower. Accordingly, the Applicants respectfully request the rejection be withdrawn and the claims allowed.

35 U.S.C. §103**Claim 20**

Claim 20 stands rejected as being unpatentable over Tepman in view of Steger and in further view of Cathey, Drage and Hower. The Applicants respectfully traverse the rejection.

As discussed above Tepman fails to teach or to suggest an inner ring and a bridge connecting the inner ring and the body as positively claimed by Applicants' independent claim 20. Moreover, Steger, Cathey, Drage and Hower fail to bridge the substantial gap left by Tepman. Steger teaches an insulative annular disk cover. (See

Steger, col. 4, ll. 64-67.) Cathey teaches an anode plate that has the outer perimeter beveled in order that the effects of polymer buildup are reduced. (See Cathey, col. 2, ll. 11-15.) Drage teaches a parallel plate plasma reactor in which the lower electrode comprises a metal electrode having a central pedestal and an insert for surrounding the pedestal. (See Drage, Abstract.) Hower teaches an improved apparatus and method for the manufacture of integrated circuits comprising at least three protrusions that extend from the wafer support susceptor. (See Hower, Abstract.) Consequently, Steger, Cathey, Drage and Hower also fail to teach, show or suggest an inner ring and a bridge connecting the inner ring and the body.

As discussed above, Tepman and Cathey cannot be meaningfully combined. However, in arguendo, even if Tepman, Steger, Drage and Hower were combined, the combination would teach a parallel plate plasma reactor in which the lower electrode comprises a metal electrode having a central pedestal and an insert for surrounding the pedestal, a wafer support susceptor with at least three protrusions that extend from the wafer support susceptor and an insulative annular disk cover with a tapered centering flange, an outer flange and a raised, inward extending roof. Therefore, combination of Tepman, Steger, Drage and Hower clearly fail to teach, show or suggest the Applicants' invention as recited by independent claim 20.

Thus, the Applicants submit that independent claim 20 is patentable over Tepman in view of Steger, Cathey, Drage and Hower. Accordingly, the Applicants respectfully request the rejection be withdrawn and the claims allowed.


CONCLUSION

Thus, Applicants submit that all claims now pending are in condition for allowance. Accordingly, both reconsideration of this application and its swift passage to issuance are earnestly solicited.

If, however, the Examiner believes that any unresolved issues still exist, it is requested that the Examiner telephone Mr. Keith Taboada at (732) 530-9404 so that appropriate arrangements can be made for resolving such issues as expeditiously as possible.

Respectfully submitted,

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